

RICK D. NYDEGGER  
BRENT P. LORIMER  
THOMAS R. VUKSINICK  
LARRY R. LAYCOCK  
JONATHAN W. RICHARDS  
DAVID R. WRIGHT  
JOHN C. STRINGHAM  
JOHN M. GUYNN  
CHARLES L. ROBERTS  
DANA L. TANGREN  
ERIC L. MASCHOFF  
CHARLES J. VEVERKA  
ROBYN L. PHILLIPS  
RICHARD C. GILMORE  
STERLING A. BRENNAN  
R. BURNS ISRAELSEN  
DAVID R. TODD  
DAVID B. DELLENBACH  
L. DAVID GRIFFIN  
ADRIAN J. LEE  
FRASER D. ROY  
CARL T. REED



R. PARRISH FREEMAN, JR.  
PETER F. MALEN, JR.  
L. REX SEARS, PH.D.  
WILLIAM R. RICHTER  
ROBERT E. AYCOCK  
JENS C. JENKINS  
MICHAEL B. DODD  
KEVIN W. STINGER  
WILLIAM J. ATHAY  
RYAN D. BENSON  
SARA D. JONES  
TIGE KELLER  
JANNA L. JENSEN  
MATTHEW D. TODD  
J. LAVAR OLDHAM  
MICHAEL J. FRODSHAM  
BRETT A. HANSEN  
BRETT I. JOHNSON  
MATTHEW A. BARLOW  
WESLEY C. ROSANDER  
ANDREW S. HANSEN  
CHAD E. NYDEGGER  
JOSEPH G. PIA  
CLINTON E. DUKE  
RYAN N. FARR  
JAMES B. BELSHE  
KIRK R. HARRIS  
KEELY SCHNEITER  
MICHAEL M. BALLARD  
DAVID A. JONES  
SHANE K. JENSEN  
JONATHAN M. BENNS, PH.D.

VERNON R. RICE §  
OF COUNSEL

# WORKMAN | NYDEGGER

INTELLECTUAL PROPERTY ATTORNEYS

1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UTAH 84111  
TELEPHONE: (801) 533-9800  
FAX: (801) 328-1707  
WEBSITE: HTTP://WWW.WNLAW.COM



PATENT APPLICATION

Docket No: 14321.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Masamichi Fujiwara et al.

Serial No.: 10/534,310

Filing Date: May 9, 2005

Confirmation No.: 1071

For: OPTICAL MODULATING DEVICE

)  
)  
)  
)  
) Art Unit  
) 2872  
)  
)  
)  
)

## TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☒ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☐ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- ☒ Form PTO-1449 listing 6 references submitted for consideration.
- ☒ A copy of 6 Non-US references listed on the Form PTO-1449.
- ☐ English translations of \_\_\_\_\_ ( ) of the references listed on the Form PTO-1449 which are not in the English language.
- ☐ Copies of the following documents from the prosecution of a previous, related application:
  - ☐ Form PTO-1449 AND INFORMATION DISCLOSURE STATEMENT; and
  - ☐ Form PTO-892

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods: .

- I. ☒ Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II. ☐ Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
  - ☐ Promptness Certification; or
  - ☐ Check No. \_\_\_\_\_ in the amount of \_\_\_\_ constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III. ☐ After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
  - ☐ Promptness Certificate;
  - ☐ Petition for Consideration; and

- \_\_\_ Check No. in the amount of \_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).
- IV. \_\_\_ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
- \_\_\_ Petition to Withdraw from Issue; and
- \_\_\_ Check No. \_\_\_ in the amount of \_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

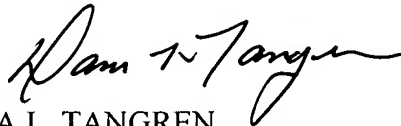
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

- X Any fee required in relation to filing of this letter or any documents transmitted therewith.
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p).
- \_\_\_ The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 9<sup>th</sup> day of November 2005.

Respectfully submitted,



DANA L. TANGREN  
Attorney for Applicant  
Registration No. 37,246  
Customer No. 022913  
Telephone No. 801.533.9800



PATENT APPLICATION

Docket No: 14321.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Masamichi Fujiwara et al.

Serial No.: 10/534,310

Filing Date: May 9, 2005

Confirmation No.: 1071

For: OPTICAL MODULATING DEVICE

)  
)  
)  
)  
) Art Unit  
) 2872  
)  
)  
)  
)

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation  
Under 37 CFR § 1.98(a)(3)

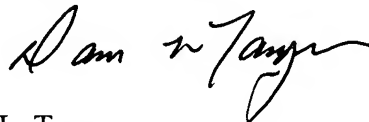
In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Japanese Patent No. 2002-318374: PROBLEM TO BE SOLVED: to actualize a multi-wavelength batch optical modulating device which can have its hardware constituted at a low cost and also can reduce the trouble and cost for maintenance management. SOLUTION: The optical modulating device is composed of one wavelength multiplexing and demultiplexing means, a plurality of light intensity modulators corresponding to the number of light carriers to be generated, and optical recurrence means which are as many as the light intensity modulators.

Japanese Patent No. 2003-018853: PROBLEM TO BE SOLVED: To reduce a common mode current applied to a power converter comprising a PWM rectifier circuit and a PWM inverter circuit at a low cost. SOLUTION Semiconductor devices Q1, Q3, and Q5 of a PWM rectifier circuit and semiconductor devices Q7, Q9, and Q11 of a PWM inverter circuit are simultaneously turned on (or off) or, semiconductor devices Q2, Q4, and Q6 of the PWM rectifier circuit and semiconductor devices Q8, Q10, and Q12 of the PWM inverter circuit are simultaneously turned off (or on) to reduce a change of a common mode voltage and hence reduce a common mode current. As a result, the dimensional reduction of a common mode filter and the dimensional reduction of a cooler of a common mode current suppressor can be realized, so that the cost can be reduced.

Dated this 9<sup>th</sup> day of November 2005.

Respectfully submitted,



Dana L. Tangren  
Attorney for Applicant  
Registration No. 37,246  
Customer No. 022913  
Telephone No. 801.533.9800



PATENT APPLICATION  
Docket No: 14321.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: )  
 )  
Masamichi Fujiwara et al. )  
 )  
Serial No.: 10/534,310 )  
 ) Art Unit  
Filing Date: May 9, 2005 ) 2872  
 )  
Confirmation No.: 1071 )  
 )  
For: OPTICAL MODULATING DEVICE )

CERTIFICATE OF DEPOSIT UNDER 37 C.F.R. § 1.8

I hereby certify that the following documents are being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the 9<sup>th</sup> day of November 2005.

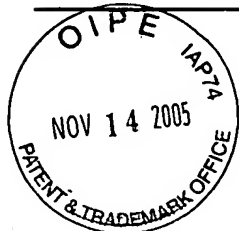
- Transmittal for Information Disclosure Statement (3 pages)
- Information Disclosure Statement (2 pages)
- Form PTO-1449 listing 6 references (2 pages)
- A copy of 6 Non-US references listed on the Form PTO-1449
- Postcard

Respectfully submitted,

DANA L. TANGREN  
Attorney for Applicant  
Registration No. 37,246  
Customer No. 022913  
Telephone No. 801.533.9800

Applicant: Masamichi Fujiwara et al.  
 Serial No.: 10/534,310  
 Filing Date: May 9, 2005  
 For: OPTICAL MODULATING DEVICE

Confirmation No.: 1071  
 Att'y Docket No.: 14321.72  
 Art Unit: 2872



# INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

## U.S. Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>
------------------------------	----------------------------	-----------------------	-------------

## Foreign Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Publication Date</u>	<u>Country or Patent Office</u>	<u>Translation</u>
___ 1	2 389 974	12/13/2002	Canada	N/A
___ 2	2002-318374	10/31/2002	Japan	No
___ 3	2003-018853	01/17/2003	Japan	No

## Other Documents

(including author, title, pertinent pages, etc.)

Examiner  
Initial\*

___ 4	Filip Ohman et al., <i>Noise Properties and Cascadability of SOA-EA Regenerators</i> , The 15 <sup>th</sup> Annual Meeting of the IEEE, Vol. 2, 2002, pp. 895-896.
___ 5	Hiroshi Takahashi et al., <i>Impact of Crosstalk in an Arrayed-Waveguide Multiplexer on N x N Optical Interconnection</i> , Journal of Lightwave Technology, Vol. 14, No. 6, June 1996, pp. 1097-1105.
___ 6	Neal S. Bergano et al., <i>Margin Measurements in Optical Amplifier Systems</i> , IEE Photonics Technology Letters, Vol. 5, No. 3, March 1993, pp. 304-306.

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: Masamichi Fujiwara et al.  
Serial No.: 10/534,310  
Filing Date: May 9, 2005  
For: OPTICAL MODULATING DEVICE

Confirmation No.: 1071  
Att'y Docket No.: 14321.72  
Art Unit: 2872

### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

W:\14321\72\DFW0000016080V001.doc

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.